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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,657	10/28/2003	Claudia Gluch	21295.69 (H747US)	4061
29127	7590	10/17/2005	EXAMINER LAVARIAS, ARNEL C	
HOUSTON ELISEEVA 4 MILITIA DRIVE, SUITE 4 LEXINGTON, MA 02421			ART UNIT 2872	PAPER NUMBER

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary	Application No. 10/695,657	Applicant(s) GLUCH ET AL.	
	Examiner Arnel C. Lavarias	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 10/28/03. These drawings are acceptable.

Response to Amendment

2. The amendments to the specification and abstract of the disclosure in the submission dated 8/4/05 are acknowledged and accepted. In view of these amendments, the objections to the specification in Section 5 of the Office Action dated 5/4/05 are respectfully withdrawn.
3. The amendments to Claims 1-5, 8-12 in the submission dated 8/4/05 are acknowledged and accepted. In view of these amendments, the objections to the claims in Section 6 of the Office Action dated 5/4/05 are respectfully withdrawn.

Response to Arguments

4. The Applicants' arguments, see in particular Pages 6-7 of Applicants' remarks, filed 8/4/05, with respect to the rejection of Claim 1, have been fully considered and are persuasive. The rejections of Claims 1-12 in Sections 8-15 of the Office Action dated 5/4/05 have been withdrawn.
5. Claims 1-12 are now rejected as follows.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus (U.S. Patent No. 2040066), of record, in view of Mori (U.S. Patent No. 3734593), of record, Zeiss (DE 9413513U1), of record, and Scouten et al. (U.S. Patent Application Publication US 2003/0120282A1), of record.

Ursinus discloses a comparison optical system (See for example Figure 11), comprising two macroscopes (See for example a, b, a', b' in Figure 11); a bridge which couples the macroscopes mechanically and optically to one another (See for example f, f', g in Figure 11); a stage associated with each microscope for placing a sample thereon (See for example d, o, d', o' in Figure 11); an illumination system including at least one light source for specimens placed on the stage (See for example e, e' in Figure 11); and an attachment device for the illumination system is connected to each microscope (See for example attachment of e, e' onto b, b' in Figure 11). Ursinus lacks the stages being XYZ stages and each attachment device having a plurality of movable arms and an adjustable holder for the light source, wherein at least one scale is disposed on each movable arm. However, the use of XYZ translation stages in microscopy is well known and conventional in the art. For example, Mori teaches a conventional plural-microscope optical system (See for example Figures 1-2), wherein the stage for holding a sample to

be viewed is an XYZ translation stage (See 12, 26, 25a, 25b, 25c in Figures 1-2). The combined teachings of Ursinus and Mori lack each attachment device having a plurality of movable arms and an adjustable holder for the light source, wherein at least one scale is disposed on each movable arm. However, Zeiss teaches a microscope optical system (See for example Figure 2) which utilizes an illuminator attachment means (See for example Figure 1; 13, 14 in Figure 2) that includes a plurality of movable arms (See for example 15, 17, 18, 24 in Figure 2) and an adjustable holder (See for example 19 in Figure 2) for the light source (See 21 in Figure 2). The combined teachings of Ursinus, Mori, and Zeiss lack at least one scale being disposed on each movable arm. However, the use of such scales or indicia is well known and conventional in the art. For example, Scouten et al. teaches a conventional micromanipulator (See for example Figures 1-2), wherein various arm, holder, and ring elements are provided with visual scales or indicia (See Figure 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the stages be XYZ stages and each attachment device have a plurality of movable arms and an adjustable holder for the light source, wherein at least one scale is disposed on each movable arm, as taught by Mori, Zeiss, and Scouten et al., in the comparison optical system of Ursinus, for the purpose of 1) providing selective and adjustable movement and positioning of the sample, particularly during focusing procedures, 2) providing selective and adjustable movement and positioning of the illumination source to achieve optimal illumination of the sample during focusing and viewing, and 3) providing accurate degree of control and positioning

Art Unit: 2872

of the various arms and rings of the attachment device, particularly during focusing and alignment operations.

8. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori, Zeiss, and Scouten et al.

Ursinus in view of Mori, Zeiss, and Scouten et al. discloses the invention as set forth above in Claim 1. Ursinus in view of Mori, Zeiss, and Scouten et al. further discloses the first arm having an end, opposite the rotatable ring, and a first clamping apparatus guiding a second arm (See 13, 14, 15, 16, 17 in Figure 2 of Zeiss); a second clamping apparatus (See for example clamp to the right of arm 17 in Figure 2 of Zeiss) disposed on the second arm, opposite the first clamping apparatus, wherein the second and third arm (See for example 18 in Figure 2 of Zeiss) are guidable perpendicular to one another (It is noted that the ball joints may be rotated along multiple axes, and that a pair of such ball joints may each be rotated along axes that are perpendicular to each other), and a holder for the illumination system being mounted opposite the second clamping apparatus (See for example holder attaching 21 to 19 in Figure 2 of Zeiss); and the holder being rotatable about an axis perpendicular to a rotation axis of the rotatable ring and perpendicular to the third arm (See for example 20 in Figure 2). Ursinus in view of Mori, Zeiss, and Scouten et al. lacks each macroscope encompassing a rotatable ring to which a first arm of the plurality of movable arms is attached, the rotatable ring being equipped with a locking screw to immobilize the rotatable ring. However, Zeiss further teaches that the various movable arms in the illumination attachment means are attached to a ring rotatably attached to the end of the objective, wherein a locking screw may be used to

Art Unit: 2872

prevent rotation of the rotatable ring to fix the rotatable ring, and hence the illumination source, in place. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have each macroscope encompass a rotatable ring to which a first arm of the several movable arms is attached, the rotatable ring being equipped with a locking screw to immobilize the rotatable ring, as further taught by Zeiss, in the comparison optical system of Ursinus in view of Mori, Zeiss, and Scouten et al., for the purpose of providing selective and adjustable movement and positioning, via rotation about the axis of the objective, of the illumination source to achieve optimal illumination of the sample during focusing and viewing.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori, Zeiss, and Scouten et al. as applied to Claim 1 above, and further in view of Bacus et al. (U.S. Patent No. 6101265), of record.

Ursinus in view of Mori, Zeiss, and Scouten et al. discloses the invention as set forth above in Claim 1, except for a personal computer (PC) being associated with the comparison optical system. However, the use of a computer or microprocessor is well known and conventional in the art of microscopy. For example Bacus et al. teaches a conventional microscopy system (See for example Figure 5), wherein the various microscope subsystems are controlled by a controlling computer system (See for example 12 in Figure 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a PC be associated with the comparison optical system of Ursinus in view of Mori, Zeiss, and Scouten et al., as taught by Bacus et

al., to take advantage of the speed and automation provided by utilizing a computer to perform the various microscope functions.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori, Zeiss, and Scouten et al. as applied to Claims 1, 8 above, and further in view of Bacus et al.

Ursinus in view of Mori, Zeiss, and Scouten et al., and further in view of Bacus et al. discloses the invention as set forth above in Claims 1, 8. Ursinus in view of Mori, Zeiss, and Scouten et al., and further in view of Bacus et al., additionally discloses that various positional values for the various encoders, illumination conditions, as well as various image data may be saved to and retrieved from files in memory on the computer (See for example col. 7, line 49-col. 11, line 42 of Bacus et al.). Ursinus in view of Mori, Zeiss, and Scouten et al., and further in view of Bacus et al., does not specifically disclose the values of at least one scale which are saved to and retrieved from files in memory on the computer. However, Scouten et al. additionally teaches a conventional micromanipulator (See for example Figures 1-2), wherein various arm, holder, and ring elements are provided with visual scales or indicia (See Figure 2). In particular, the values of such scales or indicia are electronically determined by a reader head and sent to the computer for display and storage, and that such values may be retrieved and used at a later time (See for example Paragraphs 0065-0119). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the values of at least one scale be saved to and retrieved from files in memory on the computer, as additionally taught by Scouten et al., in the comparison optical system of Ursinus in view

of Mori, Zeiss, and Scouten et al., and further in view of Bacus et al., to reduce the time and complexity in determining and recording positional data of the various elements in the attachment device.

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori, Zeiss, and Scouten et al. as applied to Claim 1 above, and further in view of Tasaki et al. (U.S. Patent No. 3637283), of record.

Ursinus in view of Mori, Zeiss, and Scouten et al. discloses the invention as set forth in Claim 1, except for the exit end of a light guide serving as the light source, the light incidence onto the specimens being determined by the values of at least one scale on the attachment device. However, the use of light guides, such as fiber optical cables and bundles, is well known in the art for applications in illumination. For example, Tasaki et al. teaches a conventional microscope system, wherein the illumination system includes a light source and fiber optical systems for guiding the light and illuminating the sample (See for example Figures 8, 9, 13). Additionally, the use of such scales or indicia is well known and conventional in the art, particularly for positioning of various elements in an optical system. For example, Scouten et al. further teaches a conventional micromanipulator (See for example Figures 1-2), wherein various arm, holder, and ring elements are provided with visual scales or indicia (See Figure 2). In particular, the values of such scales or indicia are electronically determined by a reader head and sent to the computer for display and storage, and that such values may be retrieved and used at a later time (See for example Paragraphs 0065-0119). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have

Art Unit: 2872

the exit end of a light guide serve as the light source, the light incidence onto the specimens being determined by the values of at least one scale on the attachment device, as taught by Tasaki et al. and Scouten et al., in the comparison optical system of Ursinus in view of Mori, Zeiss, and Scouten et al., for the purpose of 1) making the illumination system compact, thus reducing the size and weight of the optical system; and 2) providing accurate degree of control and positioning of the various arms and rings of the attachment device, and hence the illumination system, particularly during focusing and alignment operations.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori, Zeiss, and Scouten et al., and further in view of Tasaki et al. as applied to Claims 1, 10 above, and further in view of Bacus et al.

Ursinus in view of Mori, Zeiss, and Scouten et al., and further in view of Tasaki et al., discloses the invention as set forth above in Claims 1, 10, except for the light source being connected to a PC and receiving control signals therefrom. However, use of a computer or microprocessor is well known and conventional in the art of microscopy. For example Bacus et al. teaches a conventional microscopy system (See for example Figure 5), wherein the various microscope subsystems, including the illumination system, are controlled by a controlling computer system (See for example 168 in Figures 4A-B; 12 in Figure 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the light source be connected to a PC and receive control signals therefrom, as taught by Bacus et al., in the comparison optical system of Ursinus in view of Mori, Zeiss, and Scouten et al., and further in view of

Tasaki et al., to take advantage of the speed and automation provided by utilizing a computer to perform the various microscope functions, such as adjustment of illumination source brightness, color temperature, and spectral output.

13. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori, Zeiss, and Scouten et al. as applied to Claim 1 above, and further in view of Bacus et al.

Ursinus in view of Mori, Zeiss, and Scouten et al. discloses the invention as set forth above in Claim 1, except for the positions of the XYZ stages, the intensity of the light sources, and the positions of a revolving nosepiece are stored in a file provided in the PC, and those values are retrieved from the file in order to adjust one or two microscopes. However, the use of a computer or microprocessor is well known and conventional in the art of microscopy. For example Bacus et al. teaches a conventional microscopy system (See for example Figure 5), wherein the various microscope subsystems, such as the translation stages, illumination source, and objective turret, are controlled by a controlling computer system (See for example Figures 4A-B; 12 in Figure 5), and that settings from these subsystems may be stored to and retrieved from the computer system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the positions of the XYZ stages, the intensity of the light sources, and the positions of a revolving nosepiece be stored in a file provided in the PC, and those values be retrieved from the file in order to adjust one or two microscopes of the comparison optical system of Ursinus in view of Mori, Zeiss, and Scouten et al., as taught by Bacus et al., to take advantage of the speed and automation provided by

Art Unit: 2872

utilizing a computer to store preset microscope subsystem settings and perform the various microscope functions.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2872

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arnel C. Lavarias
10/11/05



**THONG NGUYEN
PRIMARY EXAMINER
GROUP 2800**